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10/074,333	02/12/2002	Claude C. Granel	IR 3534	5706
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KILYK & BOWERSOX, P.L.L.C.		EXAMINER		
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Warrenton, VA 20186		ART UNIT PAPER NUMBER		
		1712		

DATE MAILED: 03/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/074,333

Applicant(s)

GRANEL ET AL.

Examiner

Jeffrey B. Robertson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8, 16 and 17 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-12, 14, 15 and 18-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 18-21, 23, and 24 are rejected under 35 U.S.C. 102(a) as being anticipated by Amin-Sanayei et al. (WO 01/34670 A1).

For claim 1, this rejection covers the situation where components a) and b) are the same. In Example 1, page 14, lines 10-26, Amin-Sanayei teaches the formation of a dispersion containing a latex with a pH of 4.6. This latex is a fluoropolymer containing sterically hindered silane groups. For claims 18 and 19, in column 4, line 6, Amin-Sanayei discloses that the composition is used as a coating. For claim 20, in column 3, lines 22-23, Amin-Sanayei teaches the fluoropolymer is crosslinked. For claim 21, on page 15, lines 15-18, the use of buffers such as phosphoric acid is taught.

For claims 23 and 24, on page 6, line 21, through page 7, line 26, Amin-Sanayei describes the preferred silane monomers corresponding to applicant's formulas I and II, where the R<sup>1</sup> group is a branched C3-C6 radical, R<sup>2</sup> represents an unsaturated group such as vinyl, and R<sup>3</sup>=alkyl.

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3. Claims 1, 18-21, 23, 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi et al. (U.S. Patent No. 5,859,123).

This rejection covers situations where components a) and b) are the same. For claims 1, 18, and 19, in column 1, lines 56-67, Kobayashi teaches a water-based fluorine containing emulsion that is a one-package paint providing a coated film. In column 2, lines 29-44, Kobayashi teaches that this emulsion is produced by the copolymerization of a fluoroolefin and a olefinic-containing silicon compound. In column 2, lines 53-60, Kobayashi teaches that the fluoroolefin is a vinyl fluoride. In column 3, lines 5-52, Kobayashi teaches that vinylalkoxysilanes are preferred, and specifically names vinyltriisopropoxysilane. For claims 23 and 24, this silane falls within the definition of formula I, where  $n=0$ . It is noted that the aforementioned silane is part of a list named by Kobayashi. A genus does not always anticipate a claim to a species within the genus. However, when the species is clearly named, the species is anticipated no matter how many other species are additionally named. Ex parte A, 17 USPQ 2d 1716 (Bd. Pat. App. & Inter. 1990) See also In re Sivaramakrishnan, 673 F.2d 1383, 213 USPQ 441 (CCPA 1982). For claim 20, in column 2, lines 8-14, Kobayashi teaches that the polymer is crosslinked. For claim 21, in column 4, lines 45-56, Kobayashi teaches that a carboxylic acid monomer is added to form the polymer. This monomer acts as the internal buffer as claimed in claim 21.

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***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 4-6, 7, 9-12, 14, 15, 22, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amin-Sanayei et al. (WO 01/34670 A1) and Chen et al. (U.S. Patent No. 5,621,038).

For claims 2, 4, 5, 15, and 22, on page 4, lines 13-30, Amin-Sanayei teaches fluoropolymers containing one or more organo-silane functionalities that are sterically hindered groups corresponding to applicant's component b). On page 14, example 1, the polymer is formulated as a latex. For claim 10, on page 4, lines 23-24, Amin-Sanayei teaches that only the fluorine containing alkylene monomer is required, meaning that a homopolymer would be formed.

For claims 6 and 11, on page 4, lines 23-30, Amin-Sanayei teaches that the fluoropolymer may be a copolymer, where there is a non-fluorine containing monomer. For claim 7, on page 5, line 7, Amin-Sanayei discloses that the fluoropolymer may be derived from vinylidene fluoride. For claim 14, and 23-26, on page 6, line 21, through page 7, line 26, Amin-Sanayei describes the preferred silane monomers corresponding to applicant's formulas I and II, where the R<sup>1</sup> group is a branched C3-C6 radical, R<sup>2</sup>

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represents an unsaturated group such as vinyl, and  $R^3$ =alkyl. For claim 12, on page 6, line 9, Amin-Sanayei teaches a functional monomer such as vinyl acetate.

For claims 25 and 26, on page 6, line 21, through page 7, line 26, Amin-Sanayei describes the preferred silane monomers corresponding to applicant's formulas I and II, where the  $R^1$  group is a branched C3-C6 radical,  $R^2$  represents an unsaturated group such as vinyl, and  $R^3$ =alkyl.

In column 2, lines 18-20, Chen teaches silane containing polymers that have a shelf life of 12 or 24 months, which is greater than the three months claimed by applicant in claim 22. In column 2, lines 59-68, Chen teaches polymers that contain sterically hindered silane groups. Here, for claims 2, 4, 5, 9, and 22, Chen teaches that the polymers are vinyl acrylics and that two different monomers may be used, resulting in a copolymer.

It is noted that Claim 5 is a product-by process claim. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process" In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Amin-Sanayei and Chen are analogous art in that they are from the same field of endeavor, namely stable dispersions of polymers containing sterically hindered silane groups that are used for storage stable coating compositions. It would have been

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obvious to one of ordinary skill in the art at the time of the invention to combine the combinations of Amin-Sanayei and Chen to arrive at applicant's compositions.

Regarding claim 3, it would have been obvious to formulate the combined composition such that the thermoplastic fluoropolymer is uniformly distributed in the blend so that a homogeneous coating material is produced. It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. . . . [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980)

### ***Response to Arguments***

6. Applicant's arguments filed 12/23/03 have been fully considered but they are not persuasive. Regarding the Amin-Sanayei reference, applicant argues that since this reference does not teach the presence of a sterically hindered silane containing group in the polymer product of at least one polymerizable acrylic and/or vinyl-containing monomer and since the examiner did not include claim 4 in the rejection, that the rejection should be withdrawn in light of applicant's amendment to claim 1. The examiner disagrees. Claim 4 was not included in the rejection because it requires the presence of a silane group in component a) and because the polymers a) and b) are different. Even with applicant's amendment to claim 1, the Amin-Sanayei reference still reads claims 1, 18-21, 23, and 24, because both polymers a) and b) are the same. This

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meets the limitation that both a) and b) contain at least one sterically hindered silane containing group.

Regarding the Kobayashi reference, applicant argues that the dispersion in claim 1 involves the polymer product of at least one polymerizable acrylic and/or vinyl containing monomer dispersed in the fluoropolymer. Applicant argues that Kobayashi relates to a polymer dispersed in one phase and that in the Kobayashi reference there is no polymer dispersed in another polymer. The examiner disagrees. First, claim 1 does not set forth the limitation that the polymer product a) is dispersed in the fluoropolymer present in the aqueous dispersion b). Claim 1 only requires that the polymer product a) is "in the presence of" the dispersion b). Second, in view of applicant's argument, it is not known how the two polymers would be distinguished so it could be determined that polymer product a) is dispersed within the fluoropolymer of the b) component in situations where the polymer of component a) and the fluoropolymer of component b) are the same.

Regarding the rejection made under 35 USC §103 of claims 2,4,5,9, and 22 as being unpatentable over Amin-Sanayei in view of Chen et al., applicant argues that Amin-Sanayei does not teach or suggest an acrylic or vinyl resin containing a sterically hindered silane or silane group and that for this reason alone the rejection should be withdrawn. The examiner disagrees. The examiner is not relying on Amin-Sanayei for this teaching. The Chen et al. reference is relied on for teaching an acrylic or vinyl resin containing a sterically hindered silane or silane group.



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Applicant additionally argues that Amin-Sanayei is related to fluorochemistry, while Chen is not related to fluorochemistry. Applicant argues that during polymerization fluorine-containing monomers do not readily polymerize with other polymers and that different reaction kinetics exist in fluorochemistry. In addition, applicant sets forth that fluoropolymers have different reactivities with respect to functional groups present on the fluoropolymer and have lower pH's that affect the stability of the polymers. Applicant argues that one of ordinary skill in the art "is not going to apply non-fluorochemistry to a fluorochemistry technology". Applicant asserts that the Chen et al. reference and the Amin-Sanayei reference are non-analogous art and that the examiner is applying obvious to try rationale. In response, the examiner does not understand the relevance of the polymerization argument and reaction kinetics argument made by applicant. The compositions of Amin-Sanayei and Chen already contain polymers and in addition applicant's claims are directed to polymer blends not the polymerization of fluorine containing monomers with other polymers. In addition, applicant has not documented the assertion that fluorine-containing monomers do not polymerize with other polymers. Although applicant argues the reactivities of functional groups present on fluoropolymers as well as pH presumably to reinforce the assertion that a non-fluorochemistry technology will not be applied to a fluorochemistry technology, the examiner is not persuaded by this argument, particularly in view of the Goll reference (U.S. Patent 4,510,282) previously cited by the examiner. This reference clearly teaches the use of fluoropolymers along with a non-fluorine containing acrylic-copolymer used for weather resistant coatings. Therefore it is known in the prior art to

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combine fluoropolymers with non-fluorine containing components. Regarding applicant's assertion that Chen is not analogous art to Amin-Sanayei, the examiner disagrees, particularly in view of the fact that Amin-Sanayei discusses the Chen reference on page 2, lines 11-19. It is apparent that Amin-Sanayei considers Chen to be analogous art. Last applicant argues that the examiner is using obvious to try rationale. The examiner disagrees. The examiner is relying on the principle that it is obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose, as cited in the rejection above. Clearly, this is not obvious to try rationale. For these reasons, the rejections set forth above are continued.

***Allowable Subject Matter***

7. Claims 8, 16, and 17 are allowed.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

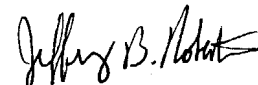
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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (571) 272-1092. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jeffrey B. Robertson  
Primary Examiner  
Art Unit 1712

JBR